

VIII. *New Genera and Species of Psocidæ.* By ROBERT M'LACHLAN, F.L.S.

[Read 5th November, 1866.]

THIS paper contains descriptions of such previously undescribed species of exotic *Psocidæ* as have come under my notice. Many of these are in the Oxford Museum, and have been kindly placed in my hands by Professor Westwood. Two new genera are described, one of which, *Neurosema*, is quite a novel form; the other, *Eremopsocus*, more nearly approaches *Psocus*. The number of species of *Psocus* is apparently very great, and it will soon be necessary to examine how far it may be requisite to transfer some of these to separate genera; some of the American and Ceylonese species will certainly have eventually to be so separated. That I have not here taken the initiative on this point is owing to the fact that I consider a still closer acquaintance with allied forms prudent before proceeding further.*

THYRSOPHORUS, Burmeister.

Thyrsophorus bellus, n. sp.

T. piceus; antennis pilosis, nigricantibus, ad basin rufescentibus (♀ articulo 3° haud incrassato); capite piceo (♀ infra pallido); scutello pallide vario; alis hyalinis, anticis maculis in dimidio basali (♂) intense fuscis, fascia media ♂ vittaque apicali testaceo-fumosis, pterostigmate triangulari, miniato, venis nigricantibus; pedibus castaneis; ♂ tibiis tarsisque anticis et tarsorum intermediorum posteriorumque apicibus infuscatis.

Var. (♀ ?)—Alis anticis maculis in dimidio basali intense fuscis, sed vitta apicali nulla; pterostigmate flavo marginato; venis apicalibus flavis.

Exp. alar. 5—5½'''.

Habitat in Brasilia (Dom. Bates).

In Muss. Oxon. et mili.

* See postscript, p. 352.

A small but very beautiful species; the third antennal joint in the female is thread-like throughout its length, whereas in the male the apical half is gradually incrassated as in the other species of the genus. It is probably variable in the markings of the wings, perhaps independently of sex; the example in my collection pertains to the variety above described, but the head is wanting.

Thyrsophorus speciosus, Burm.

T. speciosus (Klug, MSS.), Burm. Handb. ii. 782, 1; *T. Spinolæ*, Ramb. Névrof. p. 318.

Thyrsophorus pennicornis, Burm.

T. pennicornis, (Klug, MSS.), Burm. Handb. ii. 782, 2; *T. ramosus*, Walk. Brit. Mus. Cat. Neurop. pt. 3, p. 480, 5.

Thyrsophorus leucotelus, Walker.

Brit. Mus. Cat. pt. 3, p. 479, 4.

Hagen (Stett. Ent. Zeit. 1866, p. 238) thinks this may be the female of *T. speciosus*. I scarcely think this possible, but should rather refer it to *T. pennicornis*. In the latter species the two discoidal cells of the anterior wings are occupied by numerous little ramose veinlets, which are wanting in *T. leucotelus*; otherwise the two insects are very similar, but until it is proved that the presence or absence of these ramose veinlets is only a sexual character, I consider it prudent to keep them separate.

Thyrsophorus anticus, Walker.

Brit. Mus. Cat. pt. 3, p. 480, 6.

This may be at once distinguished by the thorax, which is cornuted in front. Is this character present in both sexes?

NEUROSEMA, n. g.

Caput modicum, postice emarginatum, supra fere planum, disci medio linea impressa instructo, fronte convexiuscula; labrum subquadratum, emarginatum; palpi articulis cylindricis; antennæ alis longitudine vix æquales, (probabiliter) 9-articulatæ, hirsutæ, articulis duobus basalibus parvis, 3º longissimo, incurvato, reliquis gradatim paulo brevioribus; oculi magni, subglobosi, valde prominentes; ocelli minusculi, approximati. *Prothorax* obtectus. *Mesothorax* capiti latitudine æqualis. *Abdomen* parvum. *Alæ* anticæ elongatæ, ad

apicem subrotundatæ, pilosiusculæ, ante apicem plica transversa instructæ; venis numerosis hyalinis dense sed irregulariter cribrosis, cellulis apicalibus numerosis: posticæ parvæ, vix angustatæ; venis simplicibus, furcis apicalibus duabus, vena transversa una. *Pedes* vix pilosi; tibiæ planæ, utrinque sulcatæ; tarsi 2-articulati, posteriorum articulo 1^o valde elongato.

A very singular genus, on account of the deep transverse fold or bend in the anterior wings just before the apex. These wings are densely reticulated with numerous little hyaline veinlets dividing the membrane into small cell-like spaces, which are more abundant in some parts than in others, and are altogether absent in the apical portion beyond the fold; some of these veinlets branch off without meeting others, and are then abruptly terminated in the membrane.

Neurosema apicalis, n. sp.

N. lurido-fusca; antennis nigris, fusco-pilosis, albido-terminatis; capite lurido-fusco; labro nigricante; palpis albis, articulo ultimo fusco-terminato; alis anticis fuscis, cæruleo-plagatis, macula magna apicali sub-elliptica plicaque albidis, venulis numerosis albido-hyalinis, pterostigmate sub-rotundato, venula albido-hyalina circumscripto; alis posticis fuscis, immaculatis; pedibus picco-fuscis, coxis anticis et tarsorum intermediorum posteriorumque articulo basali albidis, hoc minutè nigro-punctato.

Var.—Tarsis intermediis solùm albidis.

Exp. alar. 7^{'''}.

Habitat in Nova Guinea et insula Salwatty (Dom. Wallace). In Muss. Oxon. et mihi.

A beautiful insect; the large blue blotches on the anterior wings are visible only in certain lights.

EREMOSOCUS, n. g.

Caput magnum, obtuso-triangulare, supra fere planum; palpi articulo ultimo clavato; antennæ alis longiores, (probabiliter) 10-articulatæ, articulo basali brevi, dilatato, 2^o parvo, reliquis valde elongatis, fere æqualibus, ♂ incrassatis sed gradatim gracilioribus, pilis brevibus dense vestitis, ♀ filiformibus. *Prothorax* obtectus. *Mesothorax* magnus, prothorace latior. *Scutellum* elevatum. *Abdomen* parvum, ovatum. *Alæ* anticæ amplæ, ad apicem oblique rotundatæ; venis ut in *Psoco lineato*. cellula discoidali magna, quadrata, oclusa, cellulæ

marginales posteriores quatuor : posticæ parvæ. *Pedes* hirsutiusculi; tibiæ cylindricæ; tarsi 2-articulati.

In structure similar to the species of *Psocus* of the *lineatus* group, but remarkable for the different forms of the antennæ in the sexes, those of the ♂ being strongly incrassate, whereas in the ♀ they form a long jointed thread; they are probably 10-jointed, but some of the apical joints are obscure.

Eremopsocus infumatus, n. sp.

♂. *E. nigro-fuscus*, nitidus; antennis pedibusque nigris; capite oculisque nigro-fuscis; mesothorace lineis elevatis transversis literam $\bowtie$ formantibus instructo; scutello lineis elevatis radiatis instructo; alis anticis posticisque fuscis, nitidis, illis dimidio apicali pterostigmateque saturatoribus, venis nonnullis disci albido-hyalinis, pterostigmate magno, triangulari.

♀. Pallide brunneus; abdomine infuscato; alis haud nitidis; femoribus flavescentibus; cæteris ut in ♂.

Exp. alar. ♂ 7''', ♀ 8½'''.

Habitat in Brasilia (Dom. Bates).

In Muss. Oxon. et mihi.

Psocus, Latreille.

A. *Tarsi 3-articulati*.*

a. *Cellula discoidalis occlusa*; *cellulæ marginales posteriores quatuor*.

§ *Pterostigma liberum*.

Psocus griseipennis, n. sp.

P. fuscus; antennis flavidis, fusco-terminatis; capite flavo-griseo, naso verticeque nigro-striatis; scutello abdomineque flavido-variis; alis anticis cinereis, fusco-griseo-marmoratis et reticulatis, venis longitudinalibus albido et nigro alterne punctatis, pterostigmate triangulari, antice elongato, griseo; alis posticis hyalinis, costa ad apicem albido nigroque punctata; pedibus flavidis, tibiis hirsutiusculis, minute nigro-punctatis, femoribus maculis et tiliarum tarsorumque apicibus infuscatis.

Exp. alar. 5½—7'''.

Habitat in Australia.

In Muss. Brit., Oxon., et mihi.

This may possibly be the *P. australis* of Brauer (Verh. zool.-

* In the species of *Psocus* with triarticulate tarsi, the second, or middle joint, is always small, and generally requires a careful examination under a high power, to define it with certainty.

bot. Verein. in Wien, 1865, p. 908), with the description of which it agrees moderately well if the coloration of the body and wings are taken as reversed, but as no sectional characters are given for that species, I think it more prudent to describe my examples as new. In the coloration of the wings it somewhat resembles the European *P. variegatus*.

An example in the Oxford Museum bears the locality-label "Rio," but this must be an error; it is apparently spread over the whole Australian continent. A specimen from King George's Sound is smaller and darker, but not otherwise different.

Psocus fraternus, n. sp.

P. griseipenni similis, sed striis nasalibus punctatis, et antennis nigro flavidoque annulatis.

Exp. alar. $4\frac{3}{4}$ '''.

Habitat in Assam (Dom. Jenkins).

In Mus. Oxon.

§§ *Pterostigma cum vena furcata per venulam transversam conjunctum.*

Psocus pallipes, n. sp.

P. niger, nitidus; antennis nigris, ad basin rufescentibus; capite abdomineque piceis; alis anticis hyalinis, nebulis ad basin et ad apicem fasciaque media transversa infuscatis, venis fuscis, ad basin flavis, cellula 3^a posteriori marginali cæteris valde majore, 4^a parva, triangulari, pedunculata; pterostigmate in parte infuscato, elongato, subtriangulari; alis posticis hyalinis, venis fuscis; pedibus flavis, tarsis fusco-terminatis.

Exp. alar. $3\frac{1}{4}$ '''.

Habitat ad Adelaide in Australia meridionali.

In Mus. Oxon.

B. *Tarsi 2-articulati.*

b. *Cellula discoidalis oclusa; cellulæ marginales posteriores quatuor.*

§ *Pterostigma liberum.*

Psocus femoratus, n. sp.

P. piceus, nitidus; capite piceo; (antennis defectis); oculis ferrugineis; ocellis rufescentibus; alis anticis nitidis, nigro-fuscis, ad basin et ad apicem saturatoribus, pterostigmate elongato-triangulari, piceo, venis nigricantibus nonnullis disci

albido-marginatis ; alis posticis pallidioribus ; pedibus nigris, femoribus (apicibus exceptis) flavis.

Exp. alar. $7\frac{1}{2}$ '''.

Habitat in China boreali.

In Mus. Brit.

Psocus grisescens, n. sp.

P. cinereus ; capite immaculato ; antennis flavidis, apicem versus fusciscentibus, pilosiusculis ; ocellis nigris ; alis anticis pallide cinereis, obscure nebulosis, venis fuscis, nonnullis præcipue in disco flavidis, pterostigmate elongato-triangulari, griseo ; alis posticis hyalinis, venis fuscis ; pedibus pallide cinereis.

Var.—Capite linea media nigra, postice furcata.

Exp. alar. $5\frac{1}{2}$ — $6\frac{1}{4}$ '''.

Habitat in Natalia.

In Mus. Brit.

Psocus infectus, n. sp.

P. brunneus ; antennis (articulis duobus basalibus exceptis) nigris, hirsutiusculis ; naso, oculis, ocellisque nigricantibus ; mesothorace utrinque et antice nigro-piceo ; abdomine brunneo, flavo-vario ; alis anticis griseo-hyalinis, fuliginoso-nebulosis (præcipue ad angulum analem), nebulis irregularibus ad basin et ad discam vittaque elongata apicali sulphureis, venis fuscis, nonnullis sulphureis, pterostigmate griseo, triangulari ; alis posticis hyalinis, venis fuscis ; pedibus lurido-testaceis, tibiis brunneis, tarsis nigris.

Exp. alar. 8'''.

Habitat ad Bogota in Nova Granada.

In Coll. mihi.

Psocus reponens, Walker.

Trans. Ent. Soc. ser. 2, v. 188.

Two examples of this species from Mexico (Coffin), in the Oxford Museum do not differ from the Brazilian types described by Mr. Walker. The words "veins white" in the description (*loc. cit.*) are however incorrect ; the veins are dark fuscous.

Psocus cosmopterus, n. sp.

P. rufo-griseus ; antennis nigris, hirsutiusculis, ad basin rufo-griseis ; capite macula nigra in medio postice posita, oculis nigro-signatis ; alis anticis sub-opacis, albidis, basi fascia ante

medium postice dilatata, punctis ad marginem posticum fasciaque lata irregulari in dimidio apicali (ad marginem apicalem bis excisa) fusco-nigris, pterostigmate sub-triangulari, ferrugineo, venis nigris, nonnullis ad basin et ad discum rufescentibus; alis posticis hyalinis, venis nigris; pedibus testaceis, tibiæ tarsorumque apicibus nigris.

Exp. alar. 7'''.

Habitat ad Mount Ophir in Malacca (Dom. Wallace).

In Coll. W. W. Saunders.

Closely allied to *P. Taprobancæ*, Hagen, and perhaps a local modification of that species; differs in the pale head and thorax, sub-opaque anterior wings, and the colour of the pterostigma; the wings also appear to be somewhat narrower.

§ § *Pterostigma cum vena furcata per venulam transversam conjunctum.*

Psocus striatifrons, n. sp.

P. flavidus; antennis grisescentibus; capite flavido, lineis numerosis in naso punctisque in vertice (in nebulis tribus dispositis) nigris; labro nigro-emarginato; oculis luridis; ocellis nigris, nitidis; scutello fusco, macula media striisque elevatis radiatis quinque flavidis; abdomine flavido-vario; alis anticis hyalinis, fascia transversa interrupta ante medium maculaque ad pterostigma fuscis, venis fuscis, costa radioque albidis; pterostigmate elongato, ad apicem dilatato; alis posticis hyalinis, venis fuscis, pedibus flavidis, femoribus ad basin et ad apicem tarsisque fuscis, tibiis nigro-punctatis.

Exp. alar. 3'''.

Habitat in Australia meridionali.

In Mus. Oxon.

bb. *Cellula discoidalis aperta; cellulae marginales posteriores completæ, duæ, 2^a elliptica, libera.*

Psocus imbecillus, n. sp.

P. pallide flavidus; antennarum dimidio apicali, abdomineque infuscatis; alis pallide flavidis, venis vix obscurioribus, pterostigmate elongato-ovali; pedibus pallide flavis.

Exp. alar. $2\frac{1}{2}$ '''.

Habitat in Mauritio.

In Mus. Oxon.

I have examined one specimen gummed on card, and in bad condition. It is probable that this species may frequent houses and warehouses. I once saw a similar species in myriads in the empty hold of a ship that had just discharged a cargo of tea from China, but the specimens are unfortunately lost.

Postscript.—Since the introductory remarks to this paper were written, Dr. Hagen has published in the *Verhand. zool.-botan. Gesellschaft in Wien*, 1866, p. 203, ("Psocinorum synopsis synonymica"), a plan for dividing the old genus *Psocus* into several separate genera, which greatly facilitates a knowledge of the family. It is based upon the number of tarsal joints, and the neururation. The genera proposed are *Myopsocus*, *Elipsocus*, *Psocus* (proper), *Cæcilius* (Curtis), *Epipsocus*, *Polypsocus*, *Peripsocus*, *Stenopsocus*, *Calopsocus*, and *Dypsocus*. According to this arrangement, the species above described as *Psocus griseipennis* and *P. fraternus* belong to *Myopsocus*; *P. femoratus*, *P. griseescens*, *P. infectus*, *P. reponens* and *P. cosmopterus* to *Psocus* (proper); *P. striatifrons* to *Stenopsocus*; and *P. imbecillus* to *Cæcilius*. *P. pallipes* appears to be the only described species which, with the neururation of *Stenopsocus*, possesses tri-articulate tarsi; for it I propose the generic name *Propsocus*.